## IN THE CLAIMS

The following is a listing of pending claims:

1. (original) A method of manufacturing a workpiece, comprising the following steps:

placing respective layers of metal on the surfaces of both sides of a plate of ceramic material, the surfaces being generally mutually parallel;

cutting the metallized ceramic plate along parallel planes perpendicular to the metal layers to form a multiplicity of bars with respective sections of the cut metal layers disposed on opposite sides of each bar;

stacking the bars with metal layer facing metal layer, each pair of contacting metal layers forming a respective electrode;

bonding the stacked bars to form a stack with metal edges of the electrodes exposed on the periphery of the stack;

placing a first layer of dielectric material on a first face of the stack; and

placing a second layer of dielectric material on a second face of the stack;

wherein each of the first and second dielectric layers comprises a respective substrate that supports a respective pattern of metal applied before placement of the dielectric layers on the respective faces of the stack, metal-filled or metal–coated vias being formed in the first dielectric layer for electrically connecting the metal patterns on the first dielectric layer to respective odd-numbered electrodes and in the second dielectric layer for electrically connecting the metal patterns on the second dielectric layer to respective even-numbered electrodes.

2. (original) The method as recited in claim 1, further comprising the step of grinding the first and second faces of the bonded stack flat, leaving the metal edges of the electrodes exposed, before placing the layers of dielectric material.

3. (original) The method as recited in claim 1, further comprising the following steps:

recessing the edges of at least some of the odd-numbered electrodes from the one face of the bonded stack and filling the recesses with electrically isolating material; and

recessing the edges of at least some of the even-numbered electrodes from the other face of the bonded stack and filling the recesses with electrically isolating material,

wherein said recessing steps are performed before placing the first and second dielectric layers.

4. (original) The method as recited in claim 1, further comprising the step of placing a layer of electrically insulating spacer material on the first dielectric layer.

5. (original) The method as recited in claim 4, further comprising the step of grinding the layer of spacer material to a desired thickness.

6. (original) The method as recited in claim 4, further comprising the following steps:

cutting the bonded stack along parallel planes parallel to the electrodes to form a multiplicity of individual stacks, each stack comprising at least two odd-numbered electrodes and at least two even-numbered electrodes;

placing the individual stacks side by side with the respective electrodes being substantially co-planer and with the layers of spacer material being mutually parallel and disposed on the same side of each individual stack; and

bonding the individual stacks to form a side-by-side array.

7. (original) The method as recited in claim 6, further comprising the step of grinding the opposing faces of the array to expose metal of the odd-numbered electrodes closest to one face and the even-numbered electrodes closest to the other face.

8. (original) The method as recited in claim 7, further comprising the step of bonding the side-by-side array to an acoustic backing layer comprising a body of acoustically attenuative material.

9. (original) The method as recited in claim 8, further comprising the step of embedding a patterned array of electrical signal connectors in the body of acoustically attenuative material with respective ends of the electrical signal connectors exposed at a surface of the body.

10. (original) The method as recited in claim 8, further comprising the step of cutting the side-by-side array along parallel planes perpendicular to a longitudinal axis of the individual stacks to a depth in the acoustic backing layer.

11. (original) The method as recited in claim 8, further comprising the step of removing a substantial portion of the spacer material.

12. (original) A method of manufacturing a workpiece, comprising the following steps:

placing respective layers of metal on the surfaces of both sides of a plate of ceramic material, the surfaces being generally mutually parallel;

cutting the metallized ceramic plate along parallel planes perpendicular to the metal layers to form a multiplicity of bars with respective sections of the cut metal layers disposed on opposite sides of each bar;

stacking the bars with metal layer facing metal layer, each pair of contacting metal layers forming a respective electrode;

bonding the stacked bars to form a bonded stack with metal edges of the electrodes exposed on the periphery of the bonded stack;

placing a first layer of dielectric material on one face of the bonded stack;

placing a second layer of dielectric material on another face of the bonded stack;

forming openings in the first dielectric layer to expose portions of respective edges of the odd-numbered electrodes;

forming openings in the second dielectric layer to expose portions of respective edges of the even-numbered electrodes;

filling or coating the openings with metal; and

placing respective layers of metal on the surfaces of the first and second dielectric layers in respective patterns, the respective patterned metal layers of the first and second dielectric layers being electrically connected to respective sets of odd- and even-numbered electrodes via the metal-filled or metal-coated openings.

13. (original) The method as recited in claim 12, further comprising the step of grinding the first and second faces of the bonded stack flat, leaving the metal edges of the electrodes exposed, before placing the layers of dielectric material.

14. (original) The method as recited in claim 12, further comprising the following steps:

recessing the edges of at least some of the odd-numbered electrodes from the one face of the bonded stack and filling the recesses with electrically isolating material; and

recessing the edges of at least some of the even-numbered electrodes from the other face of the bonded stack and filling the recesses with electrically isolating material,

wherein said recessing steps are performed before placing the first and second dielectric layers.

15. (original) The method as recited in claim 12, further comprising the step of placing a layer of electrically insulating spacer material on the first dielectric layer.

16. (original) The method as recited in claim 15, further comprising the step of grinding the layer of spacer material to a desired thickness.

17. (original) The method as recited in claim 12, further comprising the following steps:

cutting the bonded stack along parallel planes parallel to the electrodes to form a multiplicity of individual stacks, each stack comprising at least two odd-numbered electrodes and at least two even-numbered electrodes;

placing the individual stacks side by side with the respective electrodes being substantially co-planer and with the layers of spacer material being mutually parallel and disposed on the same side of each individual stack; and

bonding the individual stacks to form a side-by-side array.

18. (original) The method as recited in claim 17, further comprising the step of grinding the opposing faces of the array to expose metal of the odd-numbered electrodes closest to one face and the even-numbered electrodes closest to the other face.

19. (original) A method of manufacturing comprising the following steps:

placing respective layers of metal on the surfaces of both sides of each of a multiplicity of substantially identical plates of ceramic material, the metallized surfaces of each plate being generally mutually parallel;

laminating the metallized plates together with confronting metallized surfaces to form a block; and

cutting the block along parallel planes perpendicular to the metal layers to form a multiplicity of stacks, each stack comprising alternating ceramic layers and electrodes with metal edges of the electrodes exposed on the periphery of each stack.

20. (original) The method as recited in claim 19, further comprising the following steps performed for at least one of the stacks:

placing a first layer of dielectric material on a first face of the stack; and

placing a second layer of dielectric material on a second face of the stack;

wherein each of the first and second dielectric layers comprises a respective substrate that supports a respective pattern of metal, vias being formed in the substrate of the first dielectric layer for electrically connecting the metal patterns on the first dielectric layer to respective odd-numbered electrodes and in the substrate of the second dielectric layer for electrically connecting the metal patterns on the second dielectric layer to respective even-numbered electrodes.

21. (original) The method as recited in claim 20, further comprising the step, performed for at least one of the stacks, of grinding the first and second faces of the bonded stack flat, leaving the metal edges of the electrodes exposed, before placing the layers of dielectric material.

22. (original) The method as recited in claim 21, further comprising the following steps performed for at least one of the stacks:

recessing the edges of at least some of the odd-numbered electrodes from the one face of the bonded stack and filling the recesses with electrically isolating material; and

recessing the edges of at least some of the even-numbered electrodes from the other face of the bonded stack and filling the recesses with electrically isolating material,

wherein said recessing steps are performed before placing the first and second dielectric layers.

23. - 28. (canceled)